

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE

February 2002

BUDGET ACTIVITY

05 - Engineering and Manufacturing Development

PE NUMBER AND TITLE

0603840F Global Broadcast Service (GBS)

PROJECT

4887

| COST (\$ in Thousands) | FY 2001 Actual | FY 2002 Estimate | FY 2003 Estimate | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | Cost to Complete | Total Cost |
|-------------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|
| 4887 Global Broadcast Service (GBS) | 0 | 34,202 | 22,589 | 16,792 | 15,505 | 20,762 | 6,911 | 16,936 | 133,697 |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

NOTE 1: Prior to FY02, GBS funding was contained in PE 0603854F, project 642679.

NOTE 2: In FY02, GBS received \$7,000 as part of the Defense Emergency Relief Fund (DERF). Funding will be used to achieve required weight and size reductions on Army receive suites (terminals) in support of operation Enduring Freedom. This funding is not reflected in the FY02 program total.

(U) A. Mission Description

Global Broadcast Service will provide DoD with efficient, high data rate broadcast between many distributed information sources and warfighters who will receive the broadcast directly on small, inexpensive user terminals in accordance with the GBS Operational Requirements Document (ORD) validated by the Joint Requirements Oversight Council in Apr 1995. GBS Broadcast data includes digitized imagery, logistics and weather data, maps, operational orders, and video. GBS space segment includes packages on Navy operational satellites UFO 8, 9, and 10 providing near-worldwide service, augmentation by commercial leased Ku-band packages, and throughput on future wideband satellites. GBS Broadcast Management and Terminal segments include uplink sites and receive equipment which integrate with Service fixed- and tactical-network equipment through standard commercial interfaces. Service production Receive Suite and integration into Service networks are funded in other PEs.

(U) FY 2001 (\$ in Thousands)

(U) \$0 No activity-- Funded in PE 0603854F

(U) \$0 Total

(U) FY 2002 (\$ in Thousands)

(U) \$25,974 Continue System Development and Test

(U) \$2,668 Continue Phase 2 Government System Integration

(U) \$2,480 Continue Program Support

(U) \$1,200 Continue Fielding Activities

(U) \$1,880 Continue System Test & Evaluation Support

(U) \$34,202 Total

Project 4887

Page 1 of 5 Pages

Exhibit R-2 (PE 0603840F)

UNCLASSIFIED

| RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit) | | DATE February 2002 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|-------------------------------|--------------|--------------------------------------|-------------|--|-------------|--------------------------|-------------|---|---------|-------------|--------------|-------|--|---------|---------|---------|------------|---------------------------------|---|--------|--------|---------|------------------------|---|--------|--|--|---------------------------------------|--|--|--|--|-------------------------------------|---|--|--|--|---------------------------------------|---|--|--|--|---|---|--|--|--|------------------------------|---|--|--|--|----------------|---|--|--|--|---|---|------|--------|--|---------------------------------------|---|--------|--------|---------|
| BUDGET ACTIVITY 05 - Engineering and Manufacturing Development | PE NUMBER AND TITLE 0603840F Global Broadcast Service (GBS) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | PROJECT 4887 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>(U) <u>A. Mission Description Continued</u></p> <p>(U) <u>FY 2003 (\$ in Thousands)</u></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">(U) \$16,925</td> <td>Continue System Development and Test</td> </tr> <tr> <td>(U) \$2,183</td> <td>Continue Phase 2 Government System Integration</td> </tr> <tr> <td>(U) \$2,290</td> <td>Continue Program Support</td> </tr> <tr> <td>(U) \$1,191</td> <td>Continue System Test & Evaluation Support</td> </tr> <tr> <td>(U) \$0</td> <td>No Activity</td> </tr> <tr> <td>(U) \$22,589</td> <td>Total</td> </tr> </table> <p>(U) <u>B. Budget Activity Justification</u></p> <p>Funding is in budget activity 5, Engineering and Manufacturing Development, since program is fielding pre-production equipment.</p> <p>(U) <u>C. Program Change Summary (\$ in Thousands)</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 55%;"></th> <th style="text-align: center; width: 10%;">FY 2001</th> <th style="text-align: center; width: 10%;">FY 2002</th> <th style="text-align: center; width: 10%;">FY 2003</th> <th style="text-align: center; width: 15%;">Total Cost</th> </tr> </thead> <tbody> <tr> <td>(U) Previous President's Budget</td> <td style="text-align: center;">0</td> <td style="text-align: center;">34,544</td> <td style="text-align: center;">25,444</td> <td style="text-align: center;">137,547</td> </tr> <tr> <td>(U) Appropriated Value</td> <td style="text-align: center;">0</td> <td style="text-align: center;">34,544</td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Appropriated Value</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> a. Congressional/General Reductions</td> <td style="text-align: center;">0</td> <td></td> <td></td> <td></td> </tr> <tr> <td> b. Small Business Innovative Research</td> <td style="text-align: center;">0</td> <td></td> <td></td> <td></td> </tr> <tr> <td> c. Omnibus or Other Above Threshold Reprogram</td> <td style="text-align: center;">0</td> <td></td> <td></td> <td></td> </tr> <tr> <td> d. Below Threshold Reprogram</td> <td style="text-align: center;">0</td> <td></td> <td></td> <td></td> </tr> <tr> <td> e. Rescissions</td> <td style="text-align: center;">0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Budget Years Since FY 2002 PBR</td> <td style="text-align: center;">0</td> <td style="text-align: center;">-342</td> <td style="text-align: center;">-2,855</td> <td></td> </tr> <tr> <td>(U) Current Budget Submit/FY 2003 PBR</td> <td style="text-align: center;">0</td> <td style="text-align: center;">34,202</td> <td style="text-align: center;">22,589</td> <td style="text-align: center;">133,697</td> </tr> </tbody> </table> <p>(U) <u>Significant Program Changes:</u></p> <p>The GBS Program has experienced several programmatic problems that resulted in a schedule breach from the Acquisition Program Baseline (APB) ground segment schedule outlined in the Dec 99 Selected Acquisition Report (SAR). A new program schedule baseline with incremental IOCs (Sep 01, Sep 02, and Sep 03) was approved in Jul 00. The rephasing includes moving to spiral development with system delivery in approximate 6 month increments beginning in Oct 00. IOC 1 and MSIII have slipped as a result of Operational Testing in lateCY01. Initial deployments will be to EUCOM.</p> <p>-- \$2,800 for Navy terminal support was redistributed to Other Procurement, Navy</p> | | | (U) \$16,925 | Continue System Development and Test | (U) \$2,183 | Continue Phase 2 Government System Integration | (U) \$2,290 | Continue Program Support | (U) \$1,191 | Continue System Test & Evaluation Support | (U) \$0 | No Activity | (U) \$22,589 | Total | | FY 2001 | FY 2002 | FY 2003 | Total Cost | (U) Previous President's Budget | 0 | 34,544 | 25,444 | 137,547 | (U) Appropriated Value | 0 | 34,544 | | | (U) Adjustments to Appropriated Value | | | | | a. Congressional/General Reductions | 0 | | | | b. Small Business Innovative Research | 0 | | | | c. Omnibus or Other Above Threshold Reprogram | 0 | | | | d. Below Threshold Reprogram | 0 | | | | e. Rescissions | 0 | | | | (U) Adjustments to Budget Years Since FY 2002 PBR | 0 | -342 | -2,855 | | (U) Current Budget Submit/FY 2003 PBR | 0 | 34,202 | 22,589 | 133,697 |
| (U) \$16,925 | Continue System Development and Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) \$2,183 | Continue Phase 2 Government System Integration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) \$2,290 | Continue Program Support | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) \$1,191 | Continue System Test & Evaluation Support | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) \$0 | No Activity | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) \$22,589 | Total | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | FY 2001 | FY 2002 | FY 2003 | Total Cost | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Previous President's Budget | 0 | 34,544 | 25,444 | 137,547 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Appropriated Value | 0 | 34,544 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Adjustments to Appropriated Value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| a. Congressional/General Reductions | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| b. Small Business Innovative Research | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| c. Omnibus or Other Above Threshold Reprogram | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| d. Below Threshold Reprogram | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| e. Rescissions | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Adjustments to Budget Years Since FY 2002 PBR | 0 | -342 | -2,855 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Current Budget Submit/FY 2003 PBR | 0 | 34,202 | 22,589 | 133,697 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div style="display: flex; justify-content: space-between;"> Project 4887 Page 2 of 5 Pages Exhibit R-2 (PE 0603840F) </div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE

February 2002

BUDGET ACTIVITY

05 - Engineering and Manufacturing Development

PE NUMBER AND TITLE

0603840F Global Broadcast Service (GBS)

PROJECT

4887(U) **D. Other Program Funding Summary (\$ in Thousands)**

| | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> | <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> | <u>Cost to</u> | <u>Total Cost</u> |
|--|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|
| | <u>Actual</u> | <u>Estimate</u> | <u>Estimate</u> | <u>Estimate</u> | <u>Estimate</u> | <u>Estimate</u> | <u>Estimate</u> | <u>Complete</u> | |

(U) AF RDT&E

(U) Other APPN

Note: All the Services and several DoD agencies have many programs which interface with or support GBS. Examples include: Defense Information System Network (DISN); DISA Information Dissemination Management Program; ARPA Battlefield Awareness and Data Dissemination (BADD) Advanced Concept Tactical Demonstration (ACTD); ARPA-DISA Bosnia Command Control Augmentation (BC2A) Program including Joint Broadcast Service (JBS); Navy UFO Program; Army Ground Terminal Programs; Navy SATCOM Ship Terminal Program; and Air Force MILSATCOM Terminals (PE 0303601F): AF GBS Receive Terminals (Project 836780, line P-67, PE 0303601F, Milstar Satellite Comm Sys, Other Procurement; AF Ground Multiband Terminal (GMT) Development; and AF Wideband Terminal (AWT) Development.

(U) **E. Acquisition Strategy**

The acquisition strategy has been revised to a spiral development/incremental build approach using Integrated Product Development (IPD)/Integrated product Team (IPT) approach. Program will maintain a single integration contractor for the GBS Phase 2 system while incorporating cross program/system IPTs for total system performance.

(U) **F. Schedule Profile**

| | <u>FY 2001</u> | | | | <u>FY 2002</u> | | | | <u>FY 2003</u> | | | |
|--|----------------|---|---|---|----------------|---|---|---|----------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |

(U) Previous effort performed under PE0603854F

(U) IOC 1

(U) IOC 2

(U) Milestone III

* = Completed Event; X = Planned Event

X

X

X

Project 4887

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Exhibit R-2 (PE 0603840F)

UNCLASSIFIED

| RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3) | | | | | | | | DATE February 2002 | | | |
|---|--|--------------------|--|-------------------|---|-------------------|---------|-----------------------|---------|--------------------|--|
| BUDGET ACTIVITY | | | | | PE NUMBER AND TITLE | | | | PROJECT | | |
| 05 - Engineering and Manufacturing Development | | | | | 0603840F Global Broadcast Service (GBS) | | | | 4887 | | |
| (U) <u>A. Project Cost Breakdown (\$ in Thousands)</u> | | | | | | | | | | | |
| | | | | | FY 2001 | | FY 2002 | | FY 2003 | | |
| (U) Continue System Development and Test | | | | | 0 | | 25,974 | | 16,980 | | |
| (U) Continue Phase 2 Government System Integration | | | | | 0 | | 2,668 | | 2,183 | | |
| (U) Continue Program Support | | | | | 0 | | 2,480 | | 2,235 | | |
| (U) Continue Fielding Activities | | | | | 0 | | 1,200 | | 0 | | |
| (U) Continue System Test & Evaluation Support | | | | | 0 | | 1,880 | | 1,191 | | |
| (U) Total | | | | | 0 | | 34,202 | | 22,589 | | |
| (U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u> | | | | | | | | | | | |
| (U) <u>Performing Organizations:</u> | | | | | | | | | | | |
| <u>Contractor or</u> | | <u>Contract</u> | | | | | | | | | |
| <u>Government</u> | | <u>Method/Type</u> | | <u>Award or</u> | | <u>Performing</u> | | <u>Project</u> | | | |
| <u>Performing</u> | | <u>or Funding</u> | | <u>Obligation</u> | | <u>Activity</u> | | <u>Office</u> | | <u>Total Prior</u> | |
| <u>Activity</u> | | <u>Vehicle</u> | | <u>Date</u> | | <u>EAC</u> | | <u>EAC</u> | | <u>to FY 2001</u> | |
| <u>Budget</u> | | <u>Budget</u> | | <u>Budget</u> | | <u>Budget</u> | | <u>Budget to</u> | | <u>Total</u> | |
| <u>FY 2001</u> | | <u>FY 2002</u> | | <u>FY 2003</u> | | <u>Complete</u> | | <u>Program</u> | | | |
| <u>Product Development Organizations</u> | | | | | | | | | | | |
| Raytheon System Corp | | CPAF | | 18 Nov 97 | | 105,307 | | 105,307 | | 0 | |
| Phase 2 Government System | | Various | | Various | | | | 22,332 | | 0 | |
| Integration | | | | | | | | | | | |
| <u>Support and Management Organizations</u> | | | | | | | | | | | |
| Program Support - Various | | | | Various | | N/A | | N/A | | 0 | |
| Fielding - Various | | | | | | N/A | | N/A | | 0 | |
| Sustainment (Vendor TBD) | | | | | | N/A | | N/A | | 0 | |
| <u>Test and Evaluation Organizations</u> | | | | | | | | | | | |
| Various | | | | Various | | N/A | | N/A | | 0 | |
| | | | | | | | | 1,880 | | 1,191 | |
| | | | | | | | | 508 | | 3,579 | |
| Project 4887 | | | | | | | | | | | |
| Page 4 of 5 Pages | | | | | | | | | | | |
| Exhibit R-3 (PE 0603840F) | | | | | | | | | | | |

UNCLASSIFIED

| RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3) | | | | | | DATE February 2002 | |
|---|--------------------|-------------------|-----------------|--|----------------|-----------------------|------------------|
| BUDGET ACTIVITY | | | | PE NUMBER AND TITLE | | PROJECT | |
| 05 - Engineering and Manufacturing Development | | | | 0603840F Global Broadcast Service (GBS) | | 4887 | |
| (U) Government Furnished Property: | | | | | | | |
| | <u>Contract</u> | | | | | | |
| | <u>Method/Type</u> | <u>Award or</u> | | | | | |
| <u>Item</u> | <u>or Funding</u> | <u>Obligation</u> | <u>Delivery</u> | <u>Total Prior</u> | <u>Budget</u> | <u>Budget</u> | <u>Budget</u> |
| <u>Description</u> | <u>Vehicle</u> | <u>Date</u> | <u>Date</u> | <u>to FY 2001</u> | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> |
| <u>Product Development Property</u> | | | | | | | |
| <u>Support and Management Property</u> | | | | | | | |
| <u>Test and Evaluation Property</u> | | | | | | | |
| | | | | <u>Total Prior</u> | <u>Budget</u> | <u>Budget</u> | <u>Budget</u> |
| | | | | <u>to FY 2001</u> | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> |
| | | | | | | | <u>Budget to</u> |
| | | | | | | | <u>Complete</u> |
| | | | | | | | <u>Total</u> |
| | | | | | | | <u>Program</u> |
| <u>Subtotals</u> | | | | | | | |
| Subtotal Product Development | | | | 0 | 0 | 28,642 | 19,215 |
| Subtotal Support and Management | | | | 0 | 0 | 3,680 | 2,183 |
| Subtotal Test and Evaluation | | | | 0 | 0 | 1,880 | 1,191 |
| Total Project | | | | 0 | 0 | 34,202 | 22,589 |
| | | | | | | | 7,119 |
| | | | | | | | 69,279 |
| | | | | | | | 508 |
| | | | | | | | 133,697 |

Project 4887
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Exhibit R-3 (PE 0603840F)